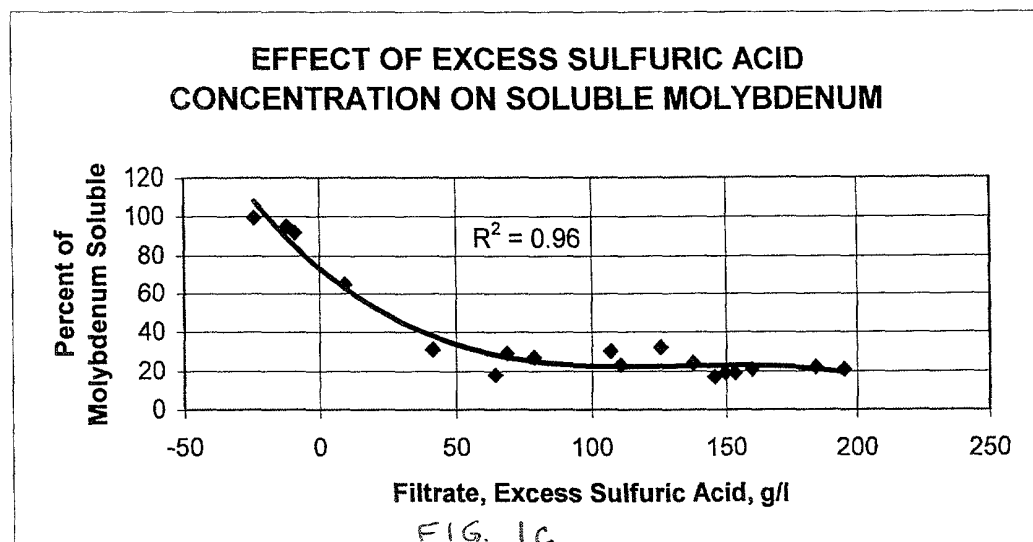
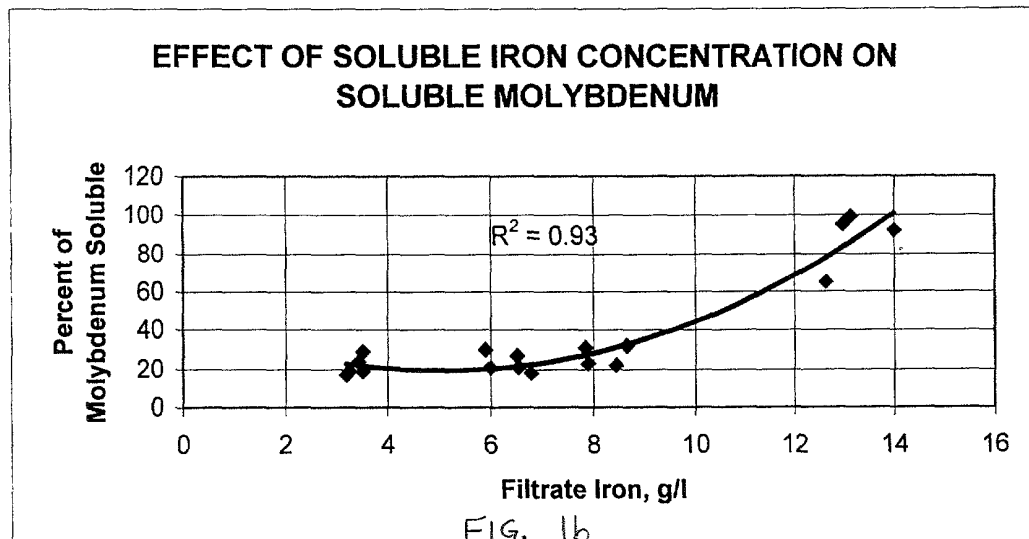
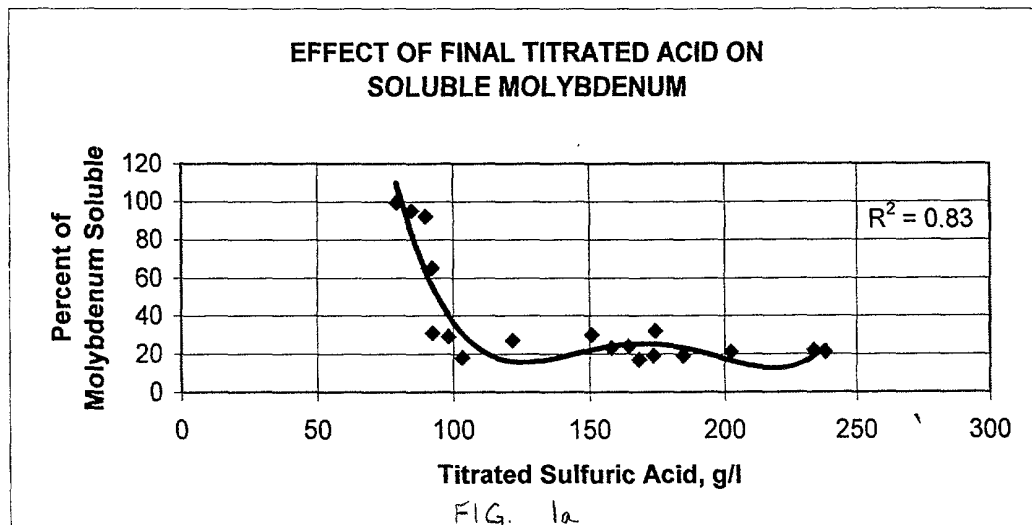
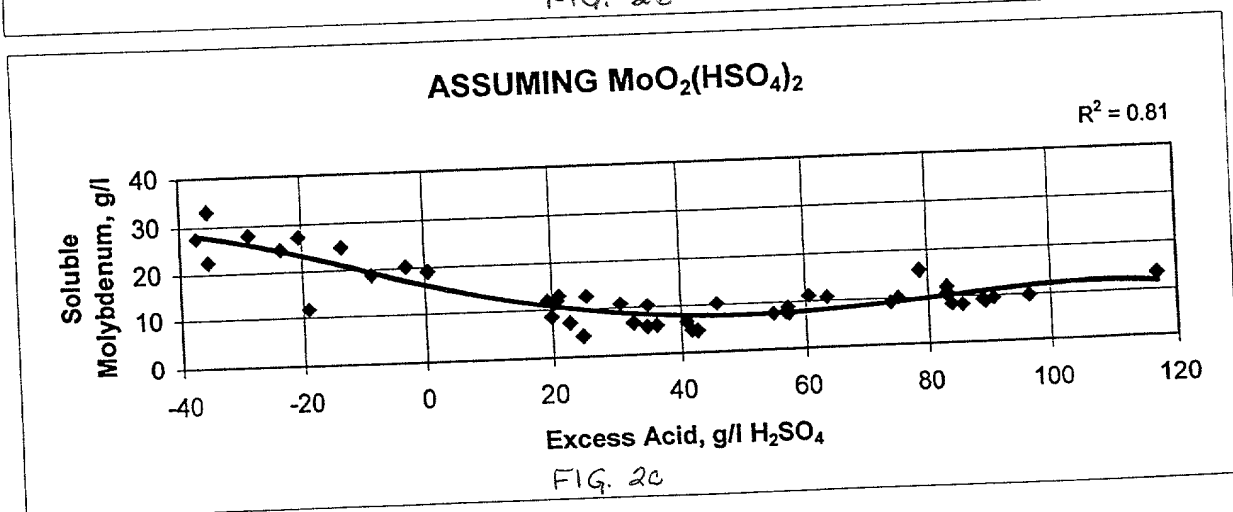
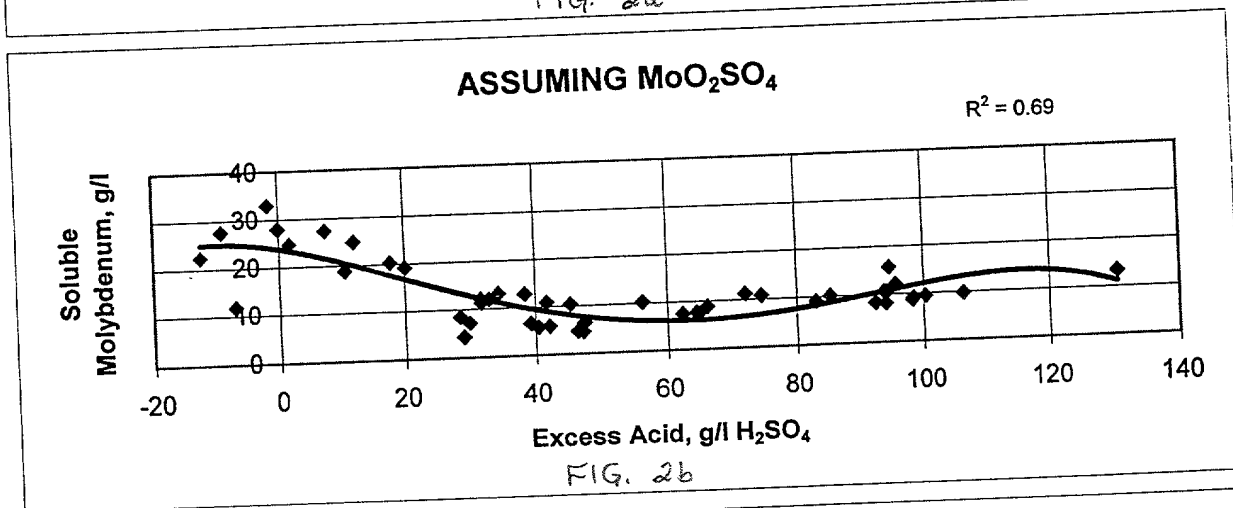
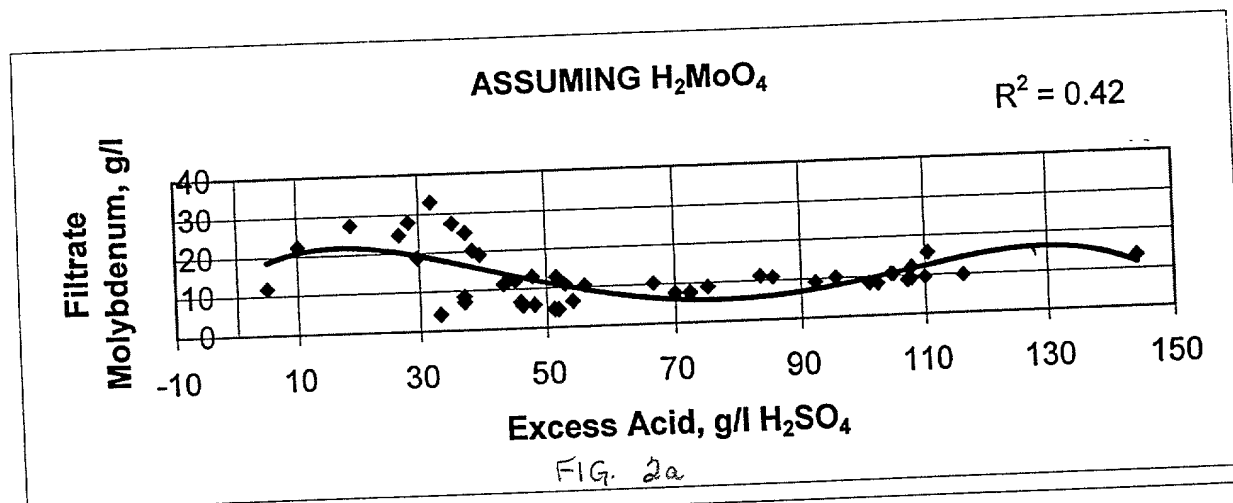


EFFECT OF VARIABLES ON SOLUBLE MOLYBDENUM



EFFECT OFF EXCESS ACID IN FILTRATE ON SOLUBLE MOLYBDENUM



TITRATED ACID vs EXCESS ACID

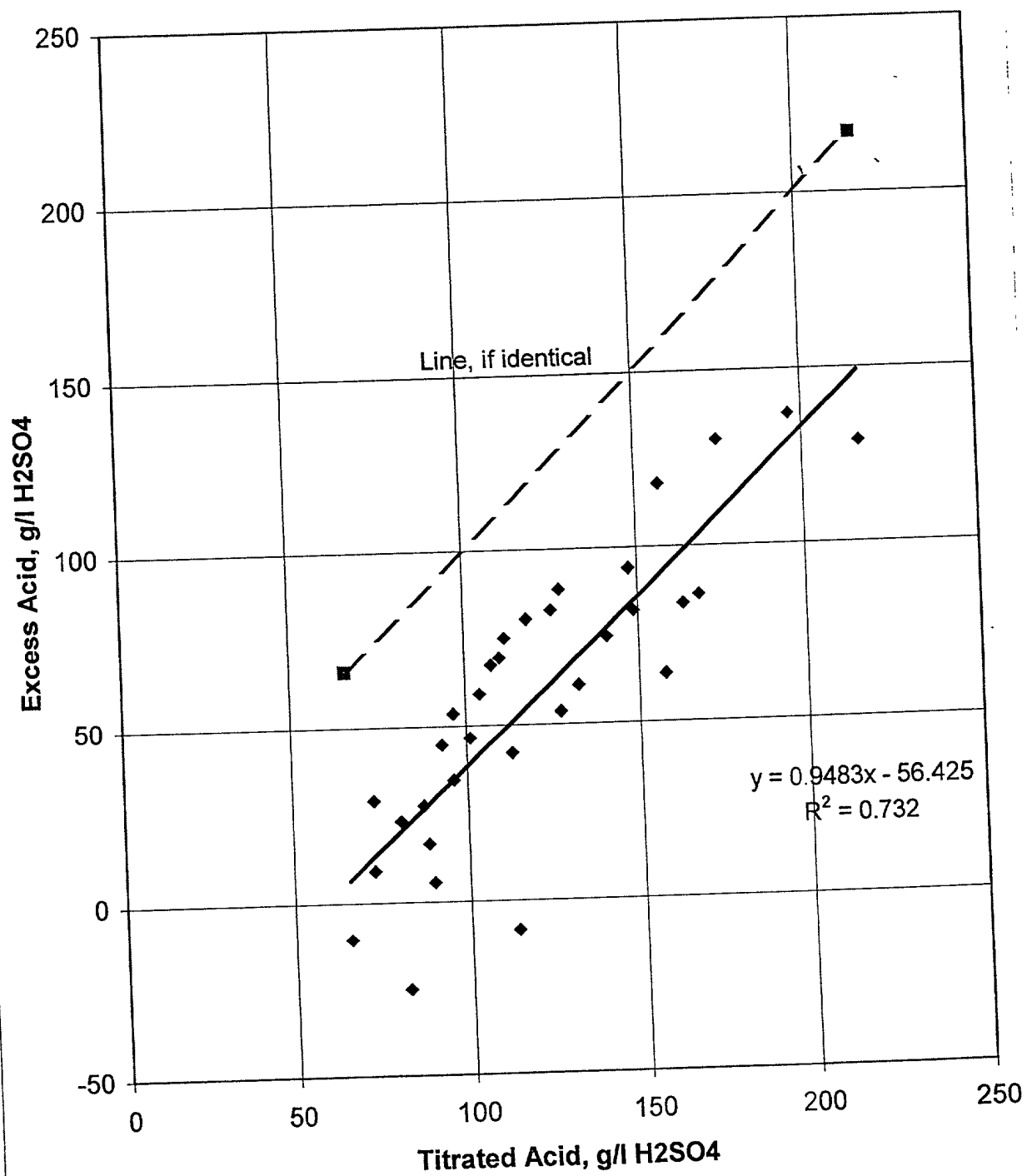


FIG. 3

MODEL TO PREDICT SOLUBLE MOLYBDENUM AFTER PRESSURE OXIDATION OF MOLYBDENITE

Concentrate and recycle entries are moles added per liter of initial autoclave slurry.

Concentrate

Moles Mo ("A")	0		
Moles Cu ("B")	0		
Moles Fe ("C")	0	Net acid from concentrate, mol/l ("H")	0.000

Recycle Solution

Moles Mo ("D")	0		
Moles Cu ("E")	0		
Moles Fe ("F")	0		
Moles H2SO4 ("G")	0	Excess acid, mol/l ("I")	0.00
		Gross initial acid, mol/l ("J")	0.00
		Predicted g/l Fe ("K")	0.00

Initial prediction, Mo g/l ("L")	22.59		
	If all MoS2 soluble, g/l Mo ("M")	0	
	Mo from MoS2 precipitated, g/l ("N")	-22.59	
	Percent precipitated ("O")	#DIV/0!	
	Acid from addl pptn, mol/l ("P")	#DIV/0!	
	Gross excess acid, mol/l ("Q")	#DIV/0!	
	Final predicted Mo g/l ("R")	#DIV/0!	
	Corrected so solubility does not exceed "M", "S"	#DIV/0!	

Formulae used in calculations

"H"	$- ("B" * 3) - (("C" - "B") * 0.5) + ("A" * 0.2 * 2) + ("C" * 0.3 * 3)$
"I"	$("G" + ((3 * "D") - (2 * "E") - (3 * "F"))) / 2)$
"J"	"I" + "H"
"K"	$((("C" * 0.7) + "F") * 55.85$
"L"	$(-10.369 * ("J" ^ 3)) + (38.992 * ("J" ^ 2)) + (-46.065 * "J") + 25.892 + ("K" / 3) - 3.3$
"M"	$96 * "A"$
"N"	"M" - "L"
"O"	"N" / "M"
"P"	$("O" - 0.2) * ("A" * 4 / 2)$
"Q"	"I" + "C" + "P"
"R"	$(-10.369 * ("Q" ^ 3)) + (38.992 * ("Q" ^ 2)) - (46.065 * "Q") + 25.892 + ("K" / 3) - 3.3$
"S"	$\text{if}("R" > "M", "M", "R")$

Note: Functions in the equations are spreadsheet style, i.e., * is times, / is divide, ^ to the power

FIG. 4

PREDICTED PERCENT SOLUBLE MOLYBDENUM **versus ACTUAL** **Final Series of Tests**

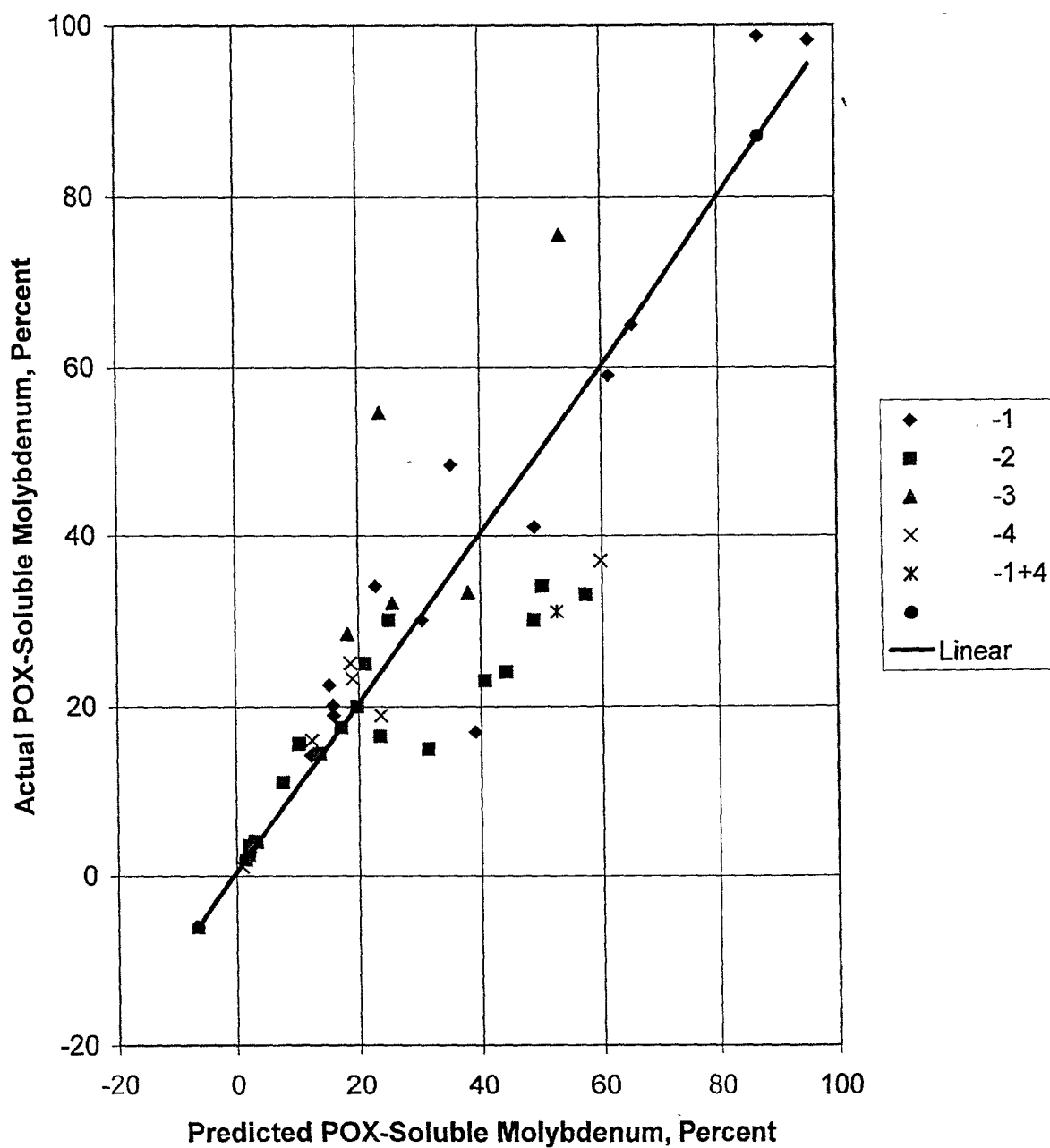


FIG. 5